

Docket No. 1776-4070

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): ENDO et al.

Group Art Unit: to be determined.

Serial No.: to be determined.

Examiner: to be determined.

Filed: December 28, 2001

For: **METHOD FOR PRODUCING COPOLYMER OF ALKYL VINYL ETHER
AND MALEIC ANHYDRIDE, AND COPOLYMER OF ALKYL VINYL
ETHER AND MALEIC ANHYDRIDE**

PRELIMINARY AMENDMENT

Commissioner for Patents
Washington DC 20231

Sir:

Prior to examination of the above-referenced application on its merits, consideration of the following claims is respectfully requested.

IN THE CLAIMS:

Please amend the following claims:

7. The method according to claim 1 wherein the alkyl vinyl ether has 1 to 5 carbon atoms.
9. The method according to claim 1 wherein the total amount of free radical initiators to be used in the polymerization is in the range of 0.005 to 0.5% by weight based on the maleic anhydride.
10. The method according to claim 1 wherein the polymerization temperature is in the range of 40 to 120 °C.
15. The method according to claim 1 wherein, after the slurry is produced, the slurry is once

cooled to form a homogeneous solution, and then, heated again to precipitate a copolymer.

18. The method according to claim 1 wherein the organic solvent is removed while maintaining the copolymer, produced by copolymerizing the alkyl vinyl ether and maleic anhydride in the presence of a free radical initiator, in the temperature range of 50 to 85 °C.

19. The method according to claim 1 wherein the organic solvent is removed while maintaining the copolymer, produced by copolymerizing the alkyl vinyl ether and maleic anhydride in the presence of a free radical initiator, in the temperature range of 70 to 85 °C.

25. The method according to claim 23 wherein the heating treatment in the posterior processes to the polymerization process is carried out under an inert gas atmosphere.

26. The method according to claim 23 wherein the heating temperature in the posterior processes to the polymerization process is 60 °C or higher.

27. The method according to claim 23 wherein the posterior processes to the polymerization process are a solvent removal process and/or a drying process, in addition thereto, a granulation process, a blending process, a transportation process and/or a storage process which are optionally installed.

28. The method according to claim 23 wherein the alkyl vinyl ether is methyl vinyl ether.

Appendix

7. The method according to claim 1 [any one of claims 1 to 6] wherein the alkyl vinyl ether has 1 to 5 carbon atoms.
9. The method according to claim 1 [any one of claims 1 to 8] wherein the total amount of free radical initiators to be used in the polymerization is in the range of 0.005 to 0.5% by weight based on the maleic anhydride.
10. The method according to claim 1 [any one of claims 1 to 8] wherein the polymerization temperature is in the range of 40 to 120 °C.
15. The method according to claim 1 [any one of claims 1 to 14] wherein, after the slurry is produced, the slurry is once cooled to form a homogeneous solution, and then, heated again to precipitate a copolymer.
18. The method according to claim 1 [any one of claims 1 to 17] wherein the organic solvent is removed while maintaining the copolymer, produced by copolymerizing the alkyl vinyl ether and maleic anhydride in the presence of a free radical initiator, in the temperature range of 50 to 85 °C.
19. The method according to claim 1 [any one of claims 1 to 18] wherein the organic solvent is removed while maintaining the copolymer, produced by copolymerizing the alkyl vinyl ether and maleic anhydride in the presence of a free radical initiator, in the temperature range of 70 to 85 °C.
25. The method according to claim 23 [or 24] wherein the heating treatment in the posterior processes to the polymerization process is carried out under an inert gas atmosphere.
26. The method according to claim 23 [any one of claims 23 to 25] wherein the heating

temperature in the posterior processes to the polymerization process is 60 °C or higher.

27. The method according to claim 23 [any one of claims 23 to 26] wherein the posterior processes to the polymerization process are a solvent removal process and/or a drying process, in addition thereto, a granulation process, a blending process, a transportation process and/or a storage process which are optionally installed.

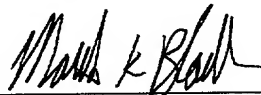
28. The method according to claim 23 [any one of claims 23 to 27] wherein the alkyl vinyl ether is methyl vinyl ether.

The Commissioner is hereby authorized to charge any additional fees which may be required for the timely consideration of this amendment under 37 C.F.R. §§ 1.16 and 1.17, or credit any overpayment to Deposit Account No. 13-4500, Order No. 1776-4070.

Respectfully submitted,
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Dated: December 28, 2001

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